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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,340	07/03/2001	Shingo Kataoka	1324.65669	2480

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EXAMINER
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CHOWDHURY, TARIFUR RASHID

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/898,340

Applicant(s)

KATAOKA, SHINGO

Examiner

Tarifur R Chowdhury

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*AS*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,6,8,9 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/28/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Prosecution on the merits of this application is reopened on claims 1-3 considered unpatentable for the reasons indicated below:

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1 and 2 are rejected under 35 U.S.C. 102(B) as being anticipated by Tillin et al., (Tillin), EP 0768562.**

4. Tillin discloses (col. 3, line 16 – col. 4, line 54; examples 1-4, 6) and shows in Figs. 1 and 2, a liquid crystal display device comprising:

- a pair of substrates including a first substrate having pixel electrodes (5), active devices (not shown) and an alignment film (6), and a second substrate having a opposing electrode (2) and an alignment film (3); and
- a liquid crystal layer (7) containing nematic liquid crystal molecules and a small amount of pre-polymer, which may, for instance, comprise a monomer, an oligomer, a polymer capable of further cross-linking or a mixture of such compounds

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(applicant's cured-product formed three-dimensionally of a composition having a liquid crystal skeletal structure), and sandwiched between pair of substrates;

wherein deformation of the liquid crystal layer is spray deformation.

Accordingly, claim 1 is anticipated.

As to claim 2, Tillin discloses different concentrations for the compositions such as 1.5 wt% to 3 wt% (examples 1-4).

**5. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al., (Suzuki), USPAT 6,256,082.**

6. Suzuki discloses (col. 5, lines 62; col. 6, lines 62-64; col. 7, lines 53-62) and shows in Figs. 11 and 12, a liquid crystal display device comprising:

- a pair of substrates including a first substrate (23) having pixel electrodes (22), active devices (not shown) and a vertical alignment film (21), and a second substrate (33) having a opposing electrode (32) and a vertical alignment film (31); and a liquid crystal layer containing nematic liquid crystal molecules (11) and a liquid crystalline monomer or oligomer unit or alkylene chains and/or monofunctional, bifunctional or polyfunctional, i.e., tri-or higher-functional monomer or oligomer units, such as dicyclopentenylacrylate and polybutadiene (applicant's cured-product formed three-dimensionally of a composition having a liquid crystal skeletal structure), and sandwiched between pair of substrates;

wherein deformation of the liquid crystal layer is bend or spray deformation.

Accordingly, claim 1 is anticipated.

As to claim 2, Suzuki also discloses (example 12) that a concentration of the UV-curable monomer (applicant's composition) is 1.0 wt% to the liquid crystal.

As to claim 3, Suzuki also discloses and shows in Fig. 11 that at least one of the substrates of the pair of the substrates has slits (24) of electrodes.

***Allowable Subject Matter***

7. Claims 5, 6, 8 and 9 are allowed.

8. Claims 4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC  
August 09, 2004



TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER